ASP - Analysis configuration

ⓘ **Summary**: this pages describes all analysis configuration options that are available for the ASP technology.

Using AIP Console

AIP Console exposes the Technology configuration options once a version has been **accepted/imported**, or an **analysis has been run**. Click **ASP Technology** to display the available options:
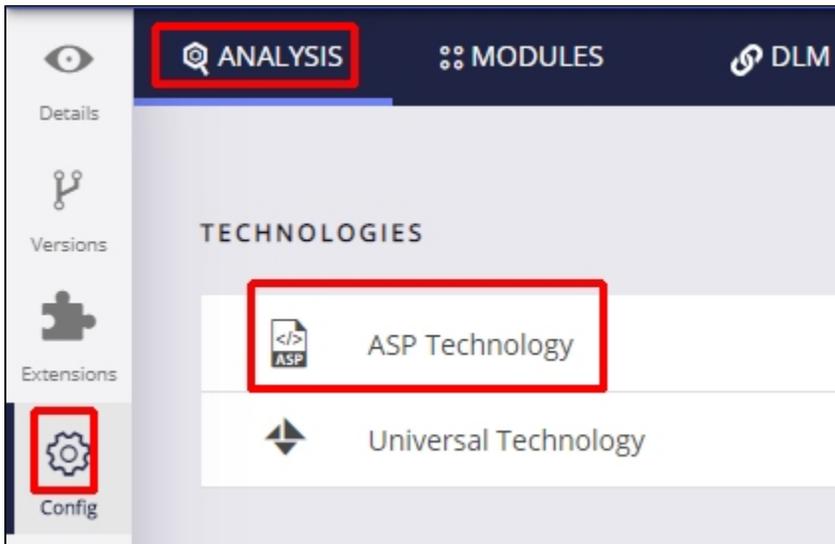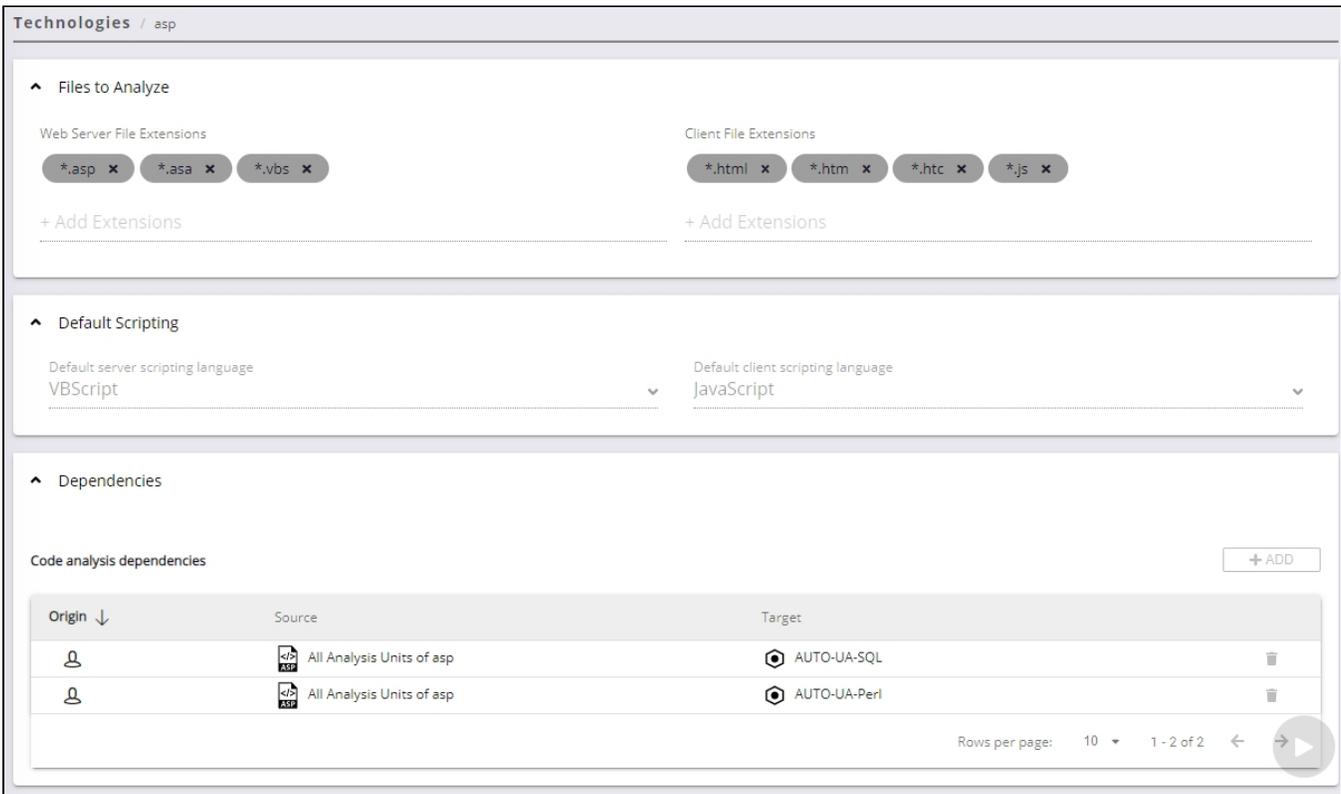

Technology settings are organized as follows:

- Settings **specific to the technology** for the **entire Application**
- List of **Analysis Units** (a set of source code files to analyze) created for the Application
    - Settings **specific to each Analysis Unit** (typically the settings are the same as at Application level) that allow you to make fine-grained configuration changes.

Settings are initially set according the information discovered during the **source code discovery process** when creating a version. You should check that these auto-determined settings are as required and that **at least one Analysis Unit** exists for the specific technology.

Click to enlarge

Files to Analyze	This section displays a list of the file extensions for both web server and client, that are included in the current file filter for your source extensions will be included in the analysis.
Default Scripting	These options enable you to select the **Default Scripting Language** for your **client-side** and **server-side** files. Use the drop down list • **VBScript** • **JavaScript** It is possible to identify the default client scripting language by finding a ASP or HTML file with a SCRIPT tag that does not have a lang and examine the language to determine if it is JavaScript or VBScript. For an application that mixes both languages, you will need to find a file with <SCRIPT> tags that DO NOT have a language specified a specified. You then need to select the language NOT specified in the <SCRIPT> tag as the default language.
Dependencies	Dependencies are configured at **Application level** for **each technology** and are configured between **individual Analysis Units/grou** technologies are not available as is the case in the CAST Management Studio). You can find out more detailed information about how in **Validate dependency configuration**.
Analysis Units	Lists all Analysis Units created. You can configure the same technology settings at Analysis Unit level if required - click the Analysis Un they match the default settings application wide technology settings): Analyze a specific Analysis Unit (and all Analysis Units within the Execution Unit), specifically for testing purposes. Disable or enable the analysis of a specific Analysis Unit, when the next Application level analysis/snapshot is run. By **nable**. When an Analysis Unit is set to disable, this is usually a temporary action to prevent an Analysis Unit from bei

Using CAST Management Studio

Introduction to analysis configuration options

The CAST Management Studio has three levels at which analysis configuration options can be set:

|	
Te ch nol ogy	- The options available at this level are valid for **all Applications** managed in the CAST Management Studio. - These are the default options that will be used to populate the same fields at **Application** and **Analysis Unit** level. If you need to define specific options for a specific Application or Analysis Unit, then you can override them. - If you make a change to a specific option at **Application** or **Analysis Unit level**, and then subsequently change the same option at **Tech nology level**, this setting will NOT be mirrored back to the Application or Analysis Unit - this is because specific settings at Application and Analysis Unit level have precedence if they have been changed from the default setting available at Technology level.
Ap pli cat ion	The options available at this level set are valid for all **corresponding Analysis Units** defined in the **current Applicatio**n (so making changes to a specific option will mean all Analysis Units in that specific Technology will "inherit" the same setting). If you need to define specific options for a specific Analysis Unit in a specific Technology, then you can do so at Analysis Unit level.
An aly sis Un it	- Options available at this level are valid only for the specific Analysis Unit. - An Analysis Unit can best be described as a set of configuration settings that govern how a perimeter of source code is consistently analyzed. - Analysis Units are automatically created when you use the **Set as current version** option to deploy the delivered source code - as such they correspond to **Projects** discovered by the CAST Delivery Manager Tool. However, they can also be created manually for situations where no Analysis Unit has been automatically created for a given project. - When the Analysis Unit has been created **automatically**, options will "inherit" their initial configuration settings from the discovery process in the CAST Delivery Manager Tool (i.e. "project" settings). Where an option could not be defined automatically via the CAST Delivery Manager Tool, it will "inherit" its initial configuration settings from those defined at **Technology level** and at **Applicati on level**. - Analysis Units that are **manually** defined will "inherit" their initial configuration settings from the settings defined at **Technology level** and at **Application level**. - Modifying an identical option at **Technology level** or at **Application level** will automatically update the **same option** in the **Analysis Unit editor** unless that specific option has already been modified independently in the Analysis Unit editor.

> ⓘ Some settings at Application and Analysis Unit level have a "Reset" option - using this will reset the option to the value set at the parent level:
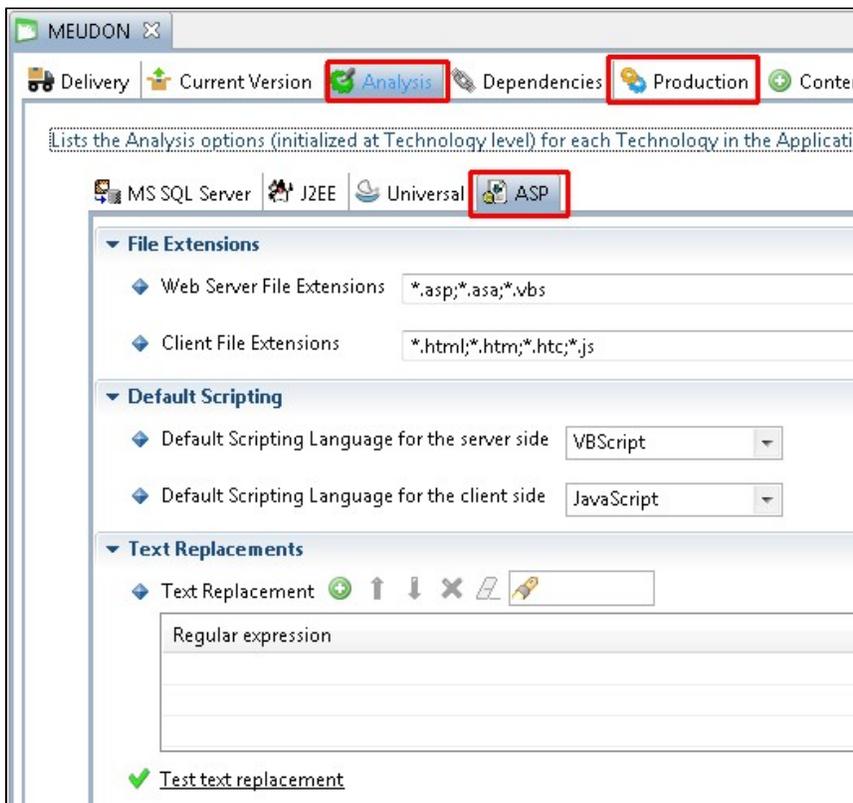>
>

Auto-configuration validation
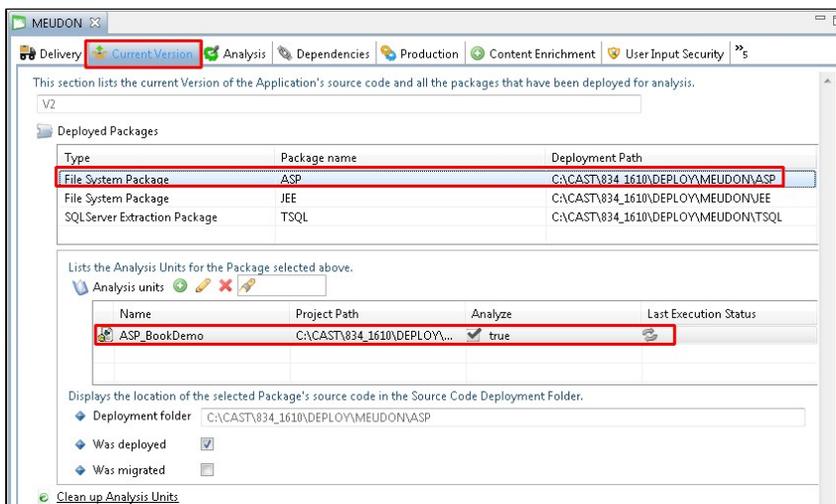
Technology / Application level

Using the **Technology level** or **Application level** options, validate the **settings** for ASP packages. Make any update as required. These settings apply to the Technology or Application as a whole (i.e. **all Analysis Units**):
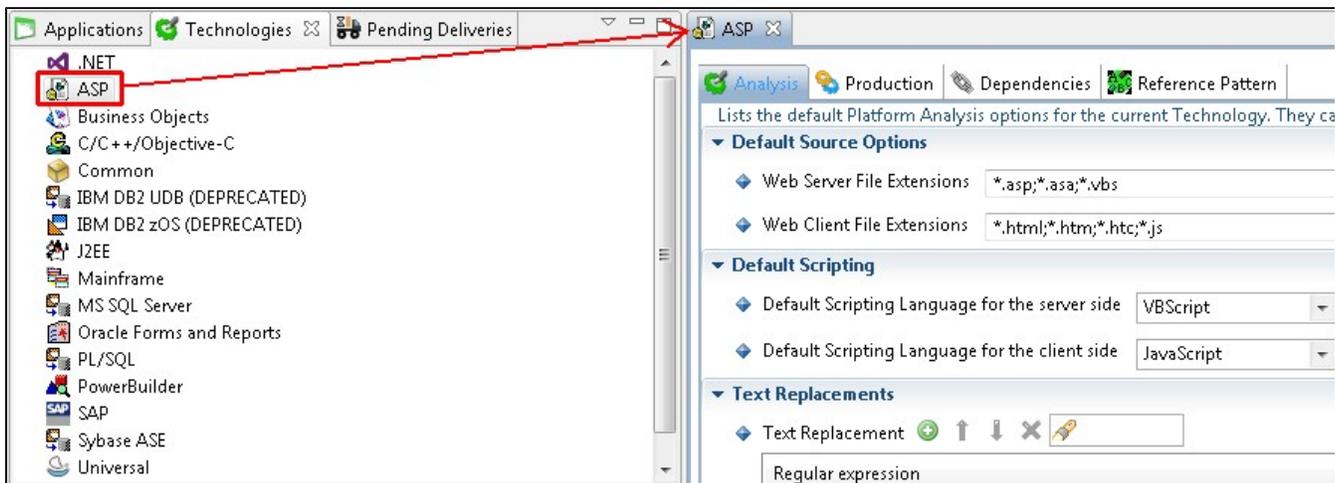
Analysis Unit level

To inspect the **auto-generated analysis** configuration, you should review the settings in each Analysis Unit - they can be accessed through the **Application editor**:

Technology options

The available options for configuring an analysis are described below. Note that some options are not available at specific levels (Technology /Application/Analysis Unit):

Source Settings

This tab shows the location of each type of source code in the ASP Analysis Unit - this is determined automatically by the CAST Delivery Manager Tool. You should, however, review the configuration and make any changes you need:

Proje ct path	The file based location of the corresponding project. This field is read-only. When the field contains **User defined**, this indicates that the Analysis Unit has been defined manually instead of automatically following the use of the CAST Delivery Manager Tool.
Appli catio n Root Path	Indicates the folder that is defined as the root folder for the Analysis Unit for analysis purposes. The Application Root Path is the path to the folder that contains **WEB-INF directory**. If this Analysis Unit is automatically defined, then this field will already be populated. You can choose a different source code location (use Browse) - or use the Reset button to re-populate the field with the information from the parent Application.

Web Server

Web Server File Extensions	This section displays a list of the file extensions that are included in the current file filter for your source code analysis. Only files that match these file extensions will be included in the analysis.
Also use Application Root Path for Web Server Files	If you select this option, the **Application Root Path** defined in the **General tab** will be used as a source for the web server files. If you wish to add additional source files use the option described below.
Files	Use this section to include or exclude specific source files for the Analysis Unit for analysis purposes - these are mainly to be used when you are manually creating your Analysis Unit but can also be used if you are modifying an automatically created Analysis Unit. • Use the ![buttons] buttons to include or exclude specific **Source Files** (in the case of files, only files matching the choices made in **Web Server File Extensions** above will be considered) or **Source Folders** (folders are searched recursively). By default CAST will automatically suggest the **Deployment Folder** set in the Current Version tab (Application editor) for your Package when adding new source code folders or files. • Use the ![X] button to remove an existing entry • Use the ![pencil] button to edit an existing entry • If this Analysis Unit is automatically defined use the ![reset] button to reset the list to the entries defined by the CAST Delivery Manager Tool If this Analysis Unit is automatically defined, then any auto defined entries will be read only.

Web Client

Web Client File Extensions	This section displays a list of the file extensions that are included in the current file filter for your source code analysis. Only files that match these file extensions will be included in the analysis.
Also use Application Root Path for Web Client Files	If you select this option, the **Application Root Path** defined in the **General tab** will be used as a source for the web client files. If you wish to add additional source files use the option described below.

| Files	Use this section to include or exclude specific source files for the Analysis Unit for analysis purposes.
	• Use the buttons to include or exclude specific **Source Files** (in the case of files, only files matching the choices made in **Web Server File Extensions** above will be considered) or **Source Folders** (folders are searched recursively). By default CAST will automatically suggest the **Deployment Folder** set in the Current Version tab (Application editor) for your Package when adding new source code folders or files.
	• Use the ✖ button to remove an existing entry
	• Use the ✎ button to edit an existing entry
	• If this Analysis Unit is automatically defined use the ⟲ button to reset the list to the entries defined by the CAST Delivery Manager Tool
	If this Analysis Unit is automatically defined, then any auto defined entries will be read only.

Analysis

The settings in this tab govern how the source code is handled by the analyzer:

Click to enlarge
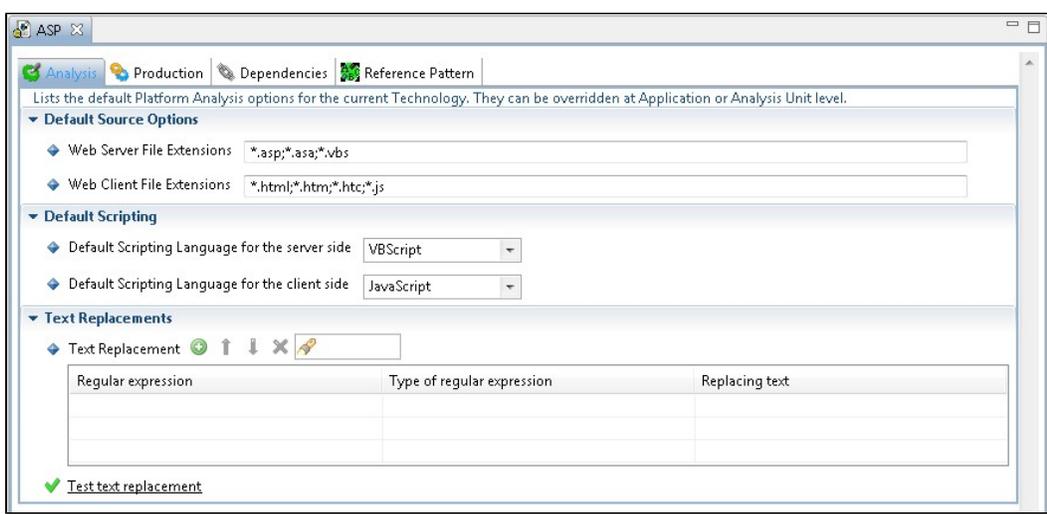
Default Source Options/File Extensions - only visible at **Technology** and **Application** level.

| **Web Server File Extensions**	Use this option to specify the file extensions that will be considered as Web Server files for analysis purposes (typically .ASP files)
Web Server File Extensions	Use this option to specify the file extensions that will be considered as Web Client files for analysis purposes (typically .html files)

Default Scripting

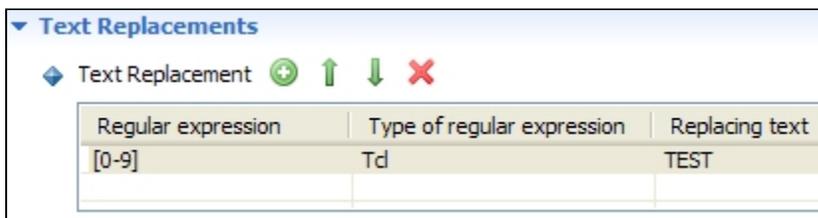| **Default Scripting Language for the client side / Default Scripting Language for the server side**	These option enables you to select the **Default Scripting Language** for your **client-side** and **server-side** files. Use the drop down list box to choose between:
	• **JavaScript**
	• **VBScript**
	It is possible to identify the default client scripting language by finding a ASP or HTML file with a SCRIPT tag that does not have a language definition (do a search for "<SCRIPT>") and examine the language to determine if it is JavaScript or VBScript.
	For an application that mixes both languages, you will need to find a file with <SCRIPT> tags that DO NOT have a language specified and <SCRIPT> tags that DO have a language specified. You then need to select the language NOT specified in the <SCRIPT> tag as the default language.

Text Replacement

This section enables you to define **Regular Expressions** (that match character strings in your selected files) that you want to replace with other text:

- Click the button to add a new line to the table listing the Text Replacements
- Double click the new line in the table and a hidden section will appear in which you can enter the details you require:
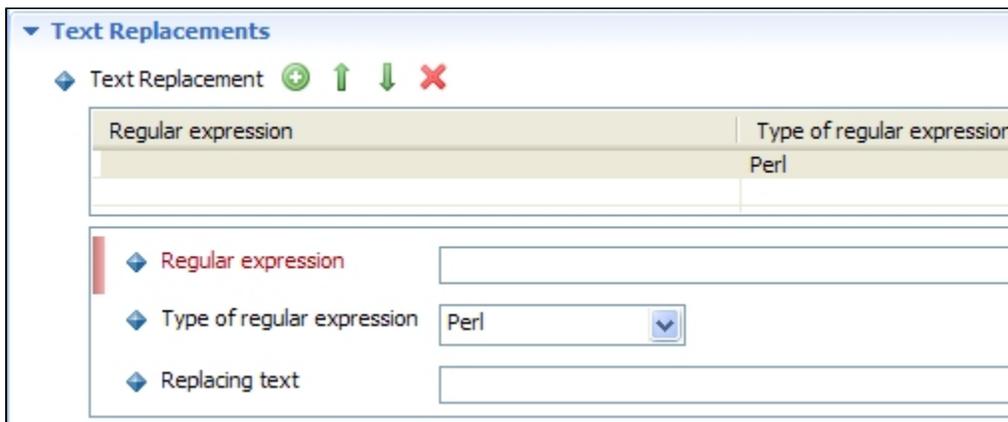
- Enter the Regular Expression in the **Regular Expression** field.
- Chose the **type** of Regular Expression in the drop down list:
    - **Perl (default format)** - Specifies that when a regular expression match is to be replaced by a new string, that the new string is constructed using the same rules as Perl 5.
    - **Sed** - Specifies that when a regular expression match is to be replaced by a new string, that the new string is constructed using the rules used by the Unix Sed utility in IEEE Std 1003.1-2001, Portable Operating System Interface (POSIX), Shells and Utilities.
    - **Tcl** - Specifies that when a regular expression match is to be replaced by a new string, the text that matches the regular expression will be replaced by the replacement text.
- Enter the text you want to replace the Regular Expression with, in the **Replacing Text** field.
- The new line in the table above should now be populated with your changes:

	Add a new Text Replacement
	Re-order the list of Text Replacements. This is **important** because the order in which the items appear in the list, is the order in which the analyzer will replace the character strings that match the Regular Expressions. Thus, if you have a complicated set of Regular Expressions and replacement texts, difficulties could arise if the order in which they are dealt with is not correct.
	Delete an existing Text Replacement
	Only visible at Application and Analysis Unit level Use this button to reset the list to the entries defined at one level higher: - **Analysis Unit level** - entries will be reset to all listed at **Appplication level** - **Application level** - entries will be reset to only those listed at **Technology level**

- Use Text Replacement **with caution**. First try to change the source tree to reflect the production environment and then use Text Replacement for other cases.
- You can use the **Test Text Replacement** option to check whether your proposed configuration will function as expected:
    - You will be prompted to choose a source file on which the Text Replacement will be tested.
    - Results of the replacement will be shown in a copy of the selected source file.

Production

Click to enlarge
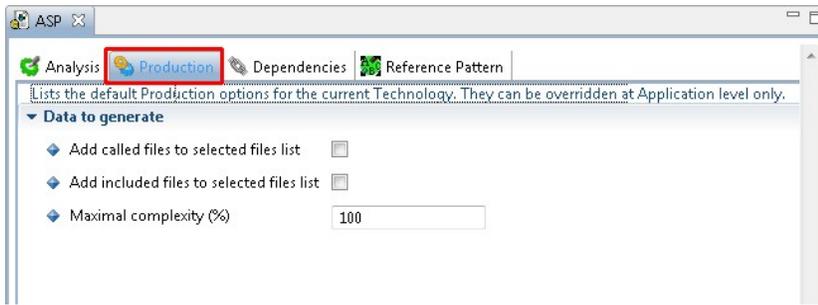
The **Production tab** is only visible at **Technology** and **Application** level.

Data to generate - Parsing options

Add called files to selected files list	Selecting this option will automatically **add** any files to the list of files selected for analysis that are **called** by files that you have already selected.
Add included files to selected files list	Selecting this option will **add** any files to the analysis list that are **included** in files that you have already selected.
Maximal Complexity	This option enables you to manually enter a percentage which will refer to the m complexity of the analysis process. • A complexity percentage of **100** (default) corresponds to a maximum of **10,000** function analyses (function * context) for a given file. • A complexity percentage of **70** corresponds to a maximum of **7,000** function analyses (function * context) for a given file. • A complexity percentage of **0** corresponds to an unlimited analysis of all the called functions. If the maximum number of function analyses is reached, this will be logged. <pre>File analysis too complex. Next function calls will not be followed by a function analysis if the function has already been analyzed</pre> When the limit is reached, links to the function will be created correctly, but links from the function will not be created. You should alter the complexity percentage if your analyses are taking a long time to complete with the default setting of 100%. Changing the percentage to a lower figure will reduce the number of function analyses for a given file, thus improving performance. Remember though that doing will cause some links not to be created.